

AMENDMENTS TO DRAWINGS

A Replacement Sheet for Page 2/3, Figure 2A, which is attached to this amendment, removes the changes of the prior amendment and restores Figure 2A to its condition when originally filed. Specifically reference numbers 113 and 143 have been removed from Figure 2A, thereby removing the inlet of scavenge pump 118 identified by reference number "113" and the radial passage, reference number "143."

An Annotated Sheets Showing Changes to Figure 2A on page 2/3 is enclosed. The amendment to the drawing enters no new matter; instead, it restores Figure 2A to its condition when originally filed.

REMARKS

The Office Action mailed December 18, 2006, has been carefully reviewed and the foregoing amendment has been made in response thereto. The amendments have been made to comply with the Office action and the examiner's requirements and to place the application in better condition for appeal.

The drawings stand objected to under 37 CFR 1.83(a). The first and second lubrication circuits recited in the claims are illustrated in the drawings, as the drawings were originally filed, with reference numbers and lead lines pointing to the elements of both lubrication circuits. Reference numbers 113 and 143, which were added to the drawings in a prior amendment, have been removed from Figure 2A by this amendment, thereby placing Figure 2A in the same condition as when the application was originally filed. No new matter has been entered in the drawings of the application. The basis for the objection to the drawings has been removed by these amendments to the drawings.

The specification stands objected to under 35 U.S.C. 132(a) because allegedly it introduces new matter regarding "the inlet 113" of sump 110. The specification, as amended, describes the passages and components of the first and second lubrication circuits using the reference numbers of the drawings. Reference number 113, which was added to the specification in a prior amendment, has been removed by this amendment. No new matter has been added to the specification of the application.

Claims 1-17 stand rejected under 35 USC 112, first paragraph. The Office action says the subject matter of the claims is not described in the specification such that it enables one skilled in the relevant art to make and/or use the invention. Claims 1-17 recite a first lubrication circuit and a second lubrication circuit. Each of these lubrication circuits is illustrated in the drawings with reference numbers attached to their components and is described in the specification with reference to the reference numbers of the circuits' components.

Claims 1-17 recite a first pump hydraulically connected to a first sump. The drawings show a first pump 120, a first sump 112, a fluid passage 140 communicating with the first sump 112, a fluid passage leading to the first pump 120, a fluid outlet passage 144 leading away from first pump 120, and fluid passages supplying fluid to the first lubrication circuit. The specification describes that the first pump 120 is hydraulically connected to the first sump 112 and describes these hydraulic connections. The drawings show hydraulic passages for this purpose and for making other hydraulic connections among the pumps 120, 118 and the first and second lubrication circuits. From the specification, drawings, academic training and work experience, one skilled in the transmission art would certainly know how to hydraulically connect the first pump 120 and the first sump 112.

Claims 1-17 recite a second pump hydraulically connected to a second sump. The drawings show a second pump 118, a second sump 110, a fluid passage communicating with the second sump 110, a fluid passage leading to the second pump 118, a fluid outlet passage 122 leading away from second pump 118, and fluid passages supplying fluid to the second lubrication circuit. The specification describes that the second pump 120 is hydraulically connected to the second sump 112 and describes these hydraulic connections. The drawings show hydraulic passages for this purpose and for making other hydraulic connections among the pumps 120, 118 and the first and second lubrication circuits.

From the specification, drawings, academic training and work experience, one skilled in the transmission art would certainly know how to hydraulically connect the second pump 118 and the second sump 110. Yet the examiner maintains that all this is "confusing and unclear," presumably to one skilled in the relevant art. Claims 1-17 should not be rejected under 35 USC 112, first paragraph because the specification meets the requirements of the statute.

Claims 1-17 stand rejected under 35 USC 103(a) as being unpatentable over Smith (USP 5,115,887) in view of Baxter (USP 5,702,319). The Office action says that the '887 patent discloses two sumps 14, 16 connected to two circuits 56, 20 via two pumps 50, 54, and then it acknowledges that the '887 patent fails to show two

pumps connected to the output drive of the transfer case. The Office action says that the '319 patent shows a lubrication system comprising two pumps 72 and 50 driven by a output drive 14 of transfer case 10. The Office action then concludes that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the pump connection of the '887 patent with the common pump connection of the '139 patent in order to maintain constant lubrication whenever the vehicle is moving with or without the engine running.

Note that the Office action rejects each of Claims 1-17 without making any attempt to point out whether all the elements and limitations of any particular claim are taught or suggested by the cited prior art references. The examiner has failed to establish a *prima facie* case of obviousness in rejecting claims 1-17 under 35 USC 103(a).

The system of the '887 patent describes operation of its system when the engine is operating and during a towing condition, when the engine is not operating. When the engine is operating passage 20 is pressurized, the spool of control valve 24 is moved leftward to the pressure-set position, hydraulic fluid is drawn from sump 16 through valve 24 to the input of lube pump 54, and fluid is drawn from sump 16 through valve 24 and passage 30 to the input of scavenge pump 50.

However, when the engine is not operating during a towing condition, control valve 24 moves to the spring-set position shown in Figure 1, where there is no hydraulic connection between sump 16 and the inlet of scavenge pump 50. There is no connection between sump 14 and the input of lube pump 54, but hydraulic fluid is drawn from sump 16 through valve 24 and passage 34 to the inlet of pump 54. Therefore, the '887 patent teaches away from having pumps 54 and 50 connected continually to the output of the transfer case because the '887 patent provides for the towing condition without requiring that each pump be driven from the transfer case output.

Furthermore, if the transfer case output were continually driveably connected to pumps 50 and 54 while the engine is not operating and the vehicle is being towed, passage 20 is not pressurized and valve 24 is placed in the spring-set

position of Figure 1. With valve 24 in that position and pump 50 driven from the output of the transfer case, the input of pump 50 would be cavitated because there is no connection between the input of pump 50 and any source of hydraulic fluid. This would be an inoperable, unacceptable condition because operating the pump with its input cavitated would quickly destroy the pump. The modification proposed by the examiner to the pump connection of the '887 patent with the common pump connection of the '319 patent renders the prior art unsatisfactory for its intended purpose; therefore, it cannot be used to reject the claims of this or any other patent application. There is no basis for combining the teachings of the '887 patent with the dual pump drive taught by the '319 patent.

The rejection of claims 1-17 should be removed because the examiner has failed to establish a *prima facie* case of obviousness because: (1) the disclosures of '887 patent and the '319 patent could not be combined in an operable fashion without use of applicants' teachings; (2) the modification proposed by the examiner to the pump connection of the '887 patent with the common pump connection of the '319 patent renders the '887 system unsatisfactory for its intended purpose; (3) the '887 patent teaches away from the system that would result by combining the teachings of the '887 patent and the '319 patent; and (4) the Office action fails to point out whether all the elements and limitations of any particular claim are taught or suggested by the cited prior art references. The fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness.

In view of the foregoing amendment and remarks, the application is now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



Frank G. McKenzie
Attorney for Applicant(s)
Reg. No. 29,242

MacMillan, Sobanski & Todd, LLC
One Maritime Plaza, Fifth Floor
720 Water Street
Toledo, Ohio 43604
(734) 542-0900
(734) 542-9569 (fax)

Annotated Sheet Showing Changes
2/3

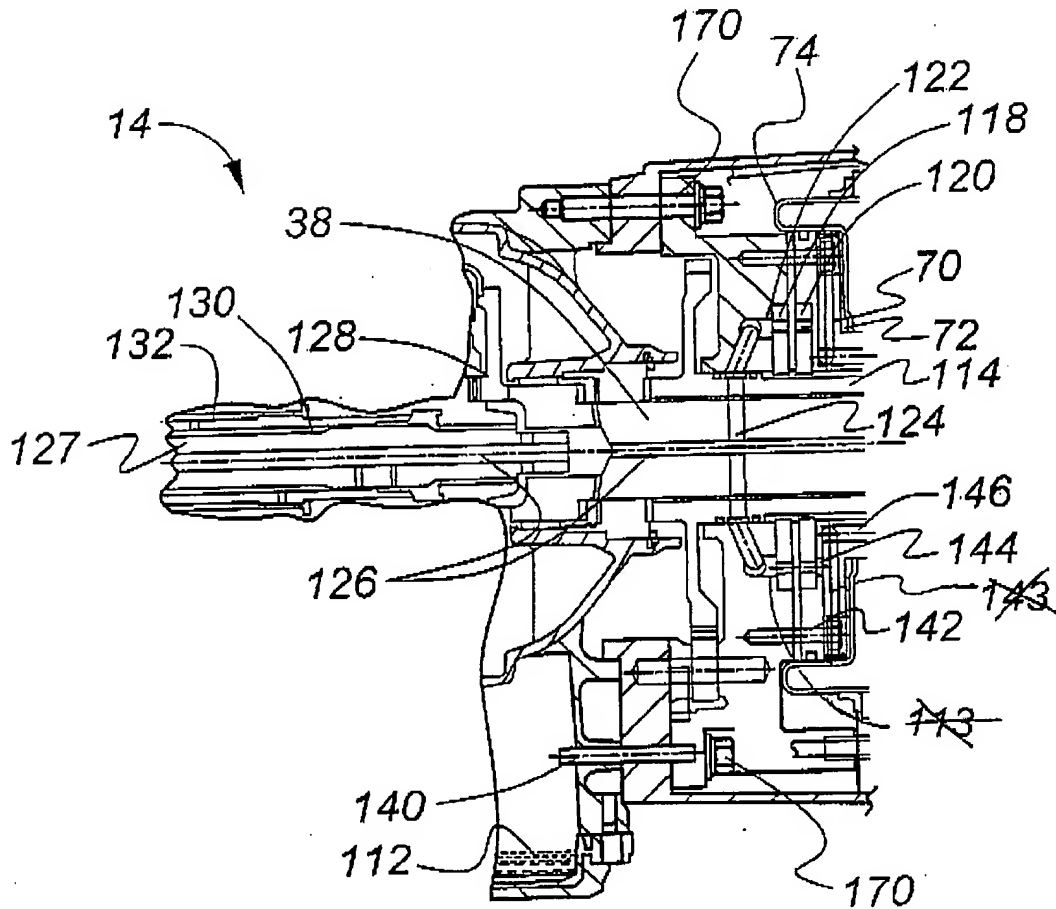


Figure 2A